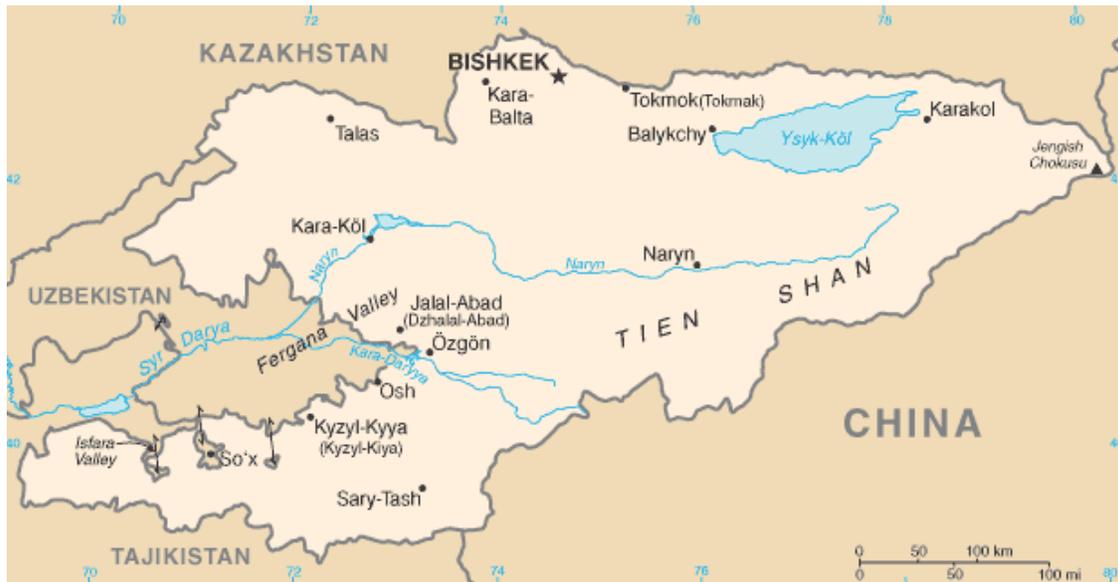


Policy Assessment Report KYRGYZSTAN

for the Central Asian TB Control Partnership



Michele Teitelbaum, Ph.D.
Alisher Ibragimov, M.Sc.
Mary Akchurin, B.A.

August 30, 2006





This publication was made possible with the support of the American people through the U.S. Agency for International Development (USAID), under the terms of a contract No. 176-A-00-04-00006-00. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of USAID or the United States Government.

Table of Contents

ACRONYMS AND ABBREVIATIONS	I
EXECUTIVE SUMMARY	II
INTRODUCTION	1
Introduction to this Report	1
Assessment Approach	2
BACKGROUND	4
Post-Soviet Health System Decline	4
Impacts on Health Status and Tuberculosis	5
Early Kyrgyz Reforms	6
Changing Infrastructure for TB Control	6
Financing for Health Care and TB Services	7
Prioritization of TB under the New Health Reform Program	9
FINDINGS	10
Relevance of KG Health Reform to WHO Objectives for Sustaining/Integrating DOTS	10
Coordination Needs at the National Level	11
Legislative and Regulatory Needs and Opportunities	12
DOTS and Primary Health Care Service Delivery Issues	14
Interaction of Hospital Rationalization and TB Care	16
Diagnostic Capabilities	18
Basic Reporting/Recording of TB Cases	19
Monitoring and Related Data Issues	19
SUMMARY OF CONCLUSIONS	20

RECOMMENDATIONS AND YEAR 3 PLANS FOR THE HC POLICY COMPONENT	22
Role of the HOPE Consortium in the TB Community	22
Coordination at the National Level	23
Development of a Central Unit for the Control of TB	23
Legislation and Regulation, including Related Development of Guidelines	24
Financing, including Level and Sources of Funding and Incentives	24
Clarification of Roles, Responsibilities and Lines of Communication	25
Planning and Analytic Support for Improvement of Laboratories	26
Reporting, Monitoring and Surveillance	26
ENDNOTES	27
ADDITIONAL REFERENCES CONSULTED	29
ANNEX A: Key Informants in Kyrgyzstan and Kazakhstan	32
ANNEX B: Selected Legislative Documents Reviewed for Assessment	35
ANNEX C: NTBC Priorities for TWGs	37
ANNEX D: NTBC TB Statistics	39

ACRONYMS AND ABBREVIATIONS

CAR	Central Asian Republics
CHSD	Center on Health Systems Development
COPD	Chronic Obstructive Pulmonary Disease
DOTS	Directly Observed Treatment, Short-course
FAP	Feldsher/obstetric Post
FGP	Family Group Practice
FGPA	Family Group Practice Association
FMC	Family Medicine Center
GDP	Gross Domestic Product
HC	Project HOPE Consortium
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
KfW	German Development Bank (Kreditanstalt für Wiederaufbau)
KG	Kyrgyz Republic
Manas Taalimi	National Health Care Reform Program 2006-2010
MDR-TB	Multi-drug Resistant Tuberculosis
MHIF	Mandatory Health Insurance Fund
MOH	Ministry of Health
NHA	National Health Accounts
NTBC	National TB Center
OMH	Oblast Merged Hospital
PAL	Practical Approach to Lung health
PHC	Primary Health Care
SES	Sanitary and Epidemiological Service
SGBP	State Guaranteed Benefit Package
STI	Sexually Transmitted Infection
SWAP	Sector Wide Approach
TB	Tuberculosis
TWG	Thematic Working Group
USAID	United States Agency for International Development
WHO	World Health Organization

EXECUTIVE SUMMARY

Since the 1990s, the United States Agency for International Development (USAID) has been actively engaged in the fight against tuberculosis (TB) in the Kyrgyz Republic (abbreviated as KG in this report) and throughout the region, most recently through the five-year region-wide program being carried out by the Project HOPE Consortium (HC), with a strong emphasis on the WHO-recommended Directly Observed Treatment, Short-Course (DOTS) strategy. This report is a policy assessment of KG that addresses the HC project objectives of political support (Project Objective 1) and integration (Project Objective 2a), which derive from the WHO recommended strategy of “sustained political commitment to increase human and financial resources and make TB control a nation-wide activity and an integral part of the national health system.” The report assesses current situations in TB service delivery – primarily the organization of service delivery, financing and resources – and explores policies and policy-relevant issues that impact the ability of KG to maintain a sustainable and effective public sector TB program. General recommendations are made, and the report concludes with recommended policy objectives and Year 3 activities with which the HC can support the KG and the work of USAID.

The background to the Kyrgyz TB situation reviews the decline of the Soviet health care system and concurrent impacts on health status that include a recorded incidence of TB that more than doubled between 1991 and 2003, from 56.5 to 138.2 per 100,000, with multi-drug resistant TB widespread. A review of Kyrgyz health reform and the changing infrastructure for TB control shows that there has been a reduction in the number of TB institutions, and steps have been taken to incorporate detection and continuation services into primary health care. A review of financing for health care and TB services reveals that TB services have not had sufficient access to the large sources of pooled funding created under health reform, and that maintaining a separate funding stream for some TB activities has not guaranteed a sufficient level of funding for TB control. However, the Manas Taalimi program, under KG health reform, has identified control of TB and respiratory diseases as a priority area, and this development presents excellent opportunities to work with national counterparts to improve the integration and delivery of TB services and to secure additional funding for TB control.

Assessment findings emphasize areas that need to be addressed to increase prospects for the sustainability and integration of TB control. Having working groups at the national level has not achieved coordination between the TB counterparts with experience and expertise in TB and the health sector counterparts who are central to service restructuring and financing decisions and activities that can impact on TB control. Divisiveness between TB and health reform communities at the national level also limits prospects for the NTBC to develop into a strong Central Unit for TB control within the broader health system, and for TB authorities to have critical input into the review and revision of TB-related policy that is planned under the Manas Taalimi program.

An examination of TB service delivery reveals additional conflict between attitudes of TB specialists and primary health care providers who are engaged in DOTS service delivery, problems in continuity between levels of service delivery, and a lack of clarity on roles, responsibilities, and lines of communication. There is conflict between TB administrators who fear that TB funds are being diverted to other services, and health care administrators who believe that TB is benefiting from monies for other services. Costs of some TB services are not known, and the totality of TB control is funded through several disparate approaches, all of which add up to insufficient funding to address the current morbidity level of TB in KG. In addition, improvements are needed in reporting and recording, monitoring and related data activities, and laboratory capabilities.

In response to the findings, these are the key needs that this report recommends should be addressed in KG to improve sustainability and integration of TB control:

- Improved coordination and communication at the national level between health sector reform counterparts and TB counterparts. It is critical that they work together on the Manas Taalimi tasks to improve TB policy and service delivery over the next 5 years.
- Strengthening of the NTBC to develop as the Central Unit for TB control.
- Examination and revision of TB-related legislation and regulations, and further development and revision of protocols and guidelines. These activities are already planned under Manas Taalimi.
- Improved financing for TB, including temporary earmarking of sufficient funds to decrease TB-related morbidity, and provider incentives to improve TB service delivery.
- Assessment and improvement of the TB referral system between levels of care, and better definition of roles and responsibilities and lines of communication in TB control.
- Upgrading of laboratories, reporting and recording systems, and monitoring and surveillance, much of which is already anticipated under Manas Taalimi.
- Additional training, including DOTS training of FAP providers who are going to be engaged in the TB service delivery system and other PHC providers who are still untrained or need re-training; and additional training of TB facility administrators in the financial and administrative implications of health reform.

To support the KG and the USAID Mission, Year 3 policy activities are recommended for the HC which are expected to achieve the following goals:

Political Coordination at the National Level: Broaden HC working relationships to become a potential bridge-builder between TB and health system communities, and to start a productive dialogue between TB and health system counterparts on at least one major issue.

Central Unit for the Control of TB: Build on HC history of a good working relationship with the NTBC by helping that institution start on a path of focused development that is compatible with both WHO guidelines for TB programs and KG national objectives.

Legislation and Regulation: Help TB counterparts provide input to at least one significant improvement in TB-related legislation or regulation, and do so by working collaboratively with Manas Taalimi counterparts.

Financing: Ensure that analytic activity begins on TB financing, specifically on the level of financing required for TB, and to provide more TB perspective (from HC staff and TB counterparts) to the national discussions on finance reform.

Roles, Responsibilities and Lines of Communication: Ensure that improvement of TB service delivery is incorporated into the goals of upgrading the FAP level of care, and that TB counterparts are engaged in national decision making about the reconfiguration of service delivery.

Support for Improvement of Laboratories: The HC and TB counterparts who work with the Regional Laboratory Specialist should become a major source of input into Manas Taalimi plans to fund and implement laboratory improvements.

Reporting, Monitoring and Surveillance: Achieve consensus on the parameters of monitoring and surveillance, and on TB data requirements at national, oblast and facility levels; and support the NTBC to make strong progress on national monitoring guidelines for TB.

INTRODUCTION

Introduction to this Report

Despite recent progress, tuberculosis remains a significant problem in the five Central Asian Republics (CAR) of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, with an incidence of well over 100 cases per 100,000 population in four of the five countries in the region and serious challenges posed by the rise of multi-drug resistant TB (MDR-TB), TB/HIV co-infection, and increased cases among risk groups such as prison populations. The Kyrgyz Republic, the country on which this report focuses, has the second highest TB case notification rate in the region, with 118.3 cases per 100,000 population, 6104 new TB cases, and 1762 new sputum smear-positive cases in 2004.¹

Since the 1990s, the United States Agency for International Development has been actively engaged in the fight against TB in KG and throughout the region, most recently through the five-year region-wide program currently being carried out by the Project HOPE Consortium. The program focuses on TB control through improved political support to national TB programs; increased human and systems capacity, including the integration of TB control within a reformed system;² and community advocacy and mobilization, with a strong emphasis on the WHO-recommended DOTS strategy.

This report provides a policy assessment of KG that addresses the program objectives of political support (Project Objective 1) and integration of TB control within a reformed health system (Project Objective 2a). It is concerned predominantly with assessing the current situation with respect to TB services – primarily the organization of service delivery, financing and resources – and exploring policies and policy-relevant issues that impact the ability of KG to maintain a sustainable and effective public sector TB program. The report does not address policy for specialized areas handled by other partners in the consortium, such as drug management, although some areas of useful collaboration across components are identified.

While the WHO-recommended DOTS strategy was introduced in KG in 1996, and there may be widespread DOTS coverage in KG, reported at 100%,³ the challenge of implementing “a comprehensive and expanded DOTS programme” still remains. The first element of the DOTS strategy is “sustained political commitment to increase human and financial resources and make TB control a nation-wide activity and an integral part of the national health system.” The WHO goes on to note: “The DOTS programme should be made an integral health system activity with nation-wide coverage that *anchors TB activities throughout the health system at all levels*, including peripheral health facilities and the community” [emphasis added].⁴

In the case of KG, a country at the most advanced stage of health reform in the region and led by a government committed to reform, as recently illustrated by its adoption of the second five-year KG national health care reform program, “Manas Taalimi,” (2006-2010), this means that the issue of integration of the TB program structure into general health care is particularly relevant

and inevitably tied to political and financial commitment and to the sustainability of the TB system itself. With TB services such as case detection and treatment during the continuation phase already within the purview of primary health care (PHC), this process is unmistakably underway, yet the roles of all actors involved in TB control still need clarification, and several contentious issues were discovered by the assessment team. In addition to reporting the assessment findings, the report seeks to identify key policy-related activities that the Project HOPE Consortium may carry out to further the objectives of the project. This document will become part of a final policy assessment document that incorporates assessments and recommendations for the five countries covered in the HC project.

This document is not intended to be an analysis of either beneficial or detrimental aspects of integrating TB services with PHC or of the beneficial or detrimental aspects of health reform. Data for those analyses will not exist in KG until integration is much farther along, nor would it be appropriate for the team to offer an opinion without data. Rather, the team is focused on the general theme of integration by the WHO objectives for political sustainability, and we examine the possibilities for achieving those objectives within the health system that the Kyrgyz Government has chosen for its people and that donors and lenders have chosen to support. The chosen course of health reform is therefore a given fact and sets the parameters and provides major opportunities for TB policy change in KG. The challenge for the TB community is to further the objectives of TB control within those parameters and to use the policy change opportunities to the best advantage. One major challenge for TB policy is to ensure that TB expertise and experience appropriately inform policy that will be made over the next 5 years in KG and that will contribute to the success or failure of the TB control program.

Assessment Approach

The assessment relied on primary and secondary research. Secondary research consisted of a review of relevant technical policy-related documents generated both within and outside of the Project HOPE Consortium, and a review of regulatory and legal documents related to TB control and the general health system. Primary research employed a qualitative approach to data generation in the form of interviews with key informants.

During the preparatory stage, the policy team identified potential multi-level, multi-agency stakeholders at different levels and from various specialties and perspectives. The list of potential informants was reviewed by the local HOPE Consortium office and by individuals actively involved in TB control in KG, and the list was revised to ensure the capturing of perspectives of various stakeholders. Our key informants included a broad spectrum of stakeholders, including representatives from the National TB Center, the Ministry of Health and other ministries involved in tuberculosis control, key actors involved in the reform process, health care providers at both the primary and secondary care levels, educators, donor and lender organizations, and other organizations providing related technical assistance. Interviews also included informants related to special issues such as TB/HIV co-infection and TB in prisons. A complete list of informants is provided in Annex A.

During the pre-field stage, the team conducted an initial examination of the country and health system context through a review of published quantitative and qualitative literature, as well as project-generated documents such as quarterly reports; assessments/trip reports related to other project components including labs, drug management, and IEC/BCC; and the Kyrgyz country office document that tracks national policy against the categories provided in the 2003 WHO document, *Treatment of Tuberculosis: Guidelines for National Programmes*. The relevant major regulatory and policy-related documents pertaining to both tuberculosis control and the broader health care system were also collected and reviewed; a list of these documents is in Annex B.

Once in the field, the policy team conducted semi-structured interviews guided by a number of key interview topics, which allow flexibility for tailoring the inquiry to the Kyrgyz situation. The interviewers sought to clarify and obtain more detailed information in the following categories, specifically as they relate to *policy and regulatory* matters:

- Structure and organization of both the general health care system and the specialized TB system;
- In the context of health reform, the upcoming possible changes in the structure and organization of both the general health care system and the TB system;
- Formal and informal linkages between organizations in the general health care system and the TB system;
- Short-term and medium-term financing and resource allocation goals for both systems in the changing context of health reform;
- Quality of care with respect to TB service delivery at all levels;
- Functionality of the referral system and linkages with respect to TB patients between levels, including TB patient flow and case management;
- Laboratory and facility issues related to TB diagnosis and service delivery;
- Monitoring and surveillance – current roles, obstacles, future roles;
- Formal and informal linkages between organizations in the TB system and other specialized systems (e.g., HIV/AIDS);
- Human resources capacity for both TB specialists and primary health care providers;
- Patient and provider adherence to regimens and protocols;
- MDR-TB and TB in prisons;
- Coordination and collaboration among all entities involved in TB control.

Aside from specific instances for which primary data on financing and epidemiology were provided to us during interviews, we utilized predominantly qualitative methods during this assessment and relied on secondary quantitative data where necessary. The report identifies the need for additional data and follow-up studies with a more quantitative focus as necessary to accomplish the recommended activities.

Primary research was carried out over the course of two weeks by the HC policy team comprised of Dr. Michele Teitelbaum, CAMRIS Policy Specialist and the team leader; Mr. Alisher Ibragimov, Project HOPE Regional Policy Specialist; and Ms. Mary Akchurin, CAMRIS Technical Associate. Dr. Alexander Trusov, CAMRIS TB Advisor, accompanied the team and

contributed Annexes C and D to this report. The team was also accompanied and supported by Dr. Timur Aptekar, the Kyrgyzstan Country Manager. Prior to the assessment, the team had an orientation with the Regional Project HOPE office in Almaty, where they met with the regional specialists on multi-drug resistant tuberculosis, laboratory networks, the penitentiary system, and social mobilization (via V-class) to obtain a regional overview and specific policy-related information on KG in each specialty area. The team also met with the Regional Director and KG Country Manager of the ZdravPlus project to discuss the complementarity of ZdravPlus and HC work. Following the assessment in KG, the team debriefed with the Project HOPE Technical Director and with the regional USAID mission.

BACKGROUND

Post-Soviet Health System Decline

There are many countries in which donors are supporting the integration of vertical, or specialized, services into the broader spectrum of health reform. Systemic change is always difficult to accomplish, but in countries in which the specialized services have a relatively brief history, change may be easier. This is not the case in KG or other countries of the former Soviet Union, and it is important to understand the impact of the Soviet history on the health system and current policy issues related to TB control. In the Soviet era, the health care system was state-owned and the entire sector was centrally planned and managed, with no discretion allowed to local managers. Key objectives were that services should be free and accessible to everyone. A network of health care facilities was established ranging from feldsher/nursing posts, mainly in villages, to polyclinics, to district hospitals, and then to regional and national-level hospital and research institutes. The Soviet health care system achieved an extensive distribution of health services, good access for the population, and an effective system of sanitary and public health services geared to controlling communicable diseases.

Under the Soviet health care system and its emphasis on communicable disease eradication, significant investments were made and considerable success was achieved in the control of tuberculosis. By 1980, when Kyrgyzstan had a comprehensive health care system by Soviet standards, a large infrastructure of tuberculosis institutions had been built. Tuberculosis services were provided through a highly specialized, vertical arrangement of TB institutions. The TB program was headed by the National TB Research Institute, at the tertiary level. At the secondary level, it was comprised of TB hospitals in cities, rayons, and oblasts. There were TB offices in polyclinics and TB dispensaries at the rayon level, and separate sanatoriums for adults and children provided rehabilitation services.

By the 1980s, the overall health care system was no longer effective or efficient, as it was challenged by the worsening health status of the population and constrained by the growing shortage of resources, which could not sustain the large infrastructure and staffing of the Soviet system. With the disintegration of the Soviet Union, social and economic circumstances

worsened in all of its former Republics. Most relevant to the health sector in KG: income inequalities increased among the general population, and by 1993 almost half the population of KG was estimated to be poor; wages and benefits remained low for health workers and state health employees were not always paid on time, and there were chronic shortages of medicines and food in hospitals, and insufficient capital inputs in the system.⁵ Kyrgyzstan cut its real public health spending roughly in proportion to the fall in revenues, and health expenditures fell from 3.7 percent of GDP to 2.4 percent. GDP itself declined dramatically; in 1995 it was at only 50 percent of its 1990 level. The current health care system still suffers from chronic under-financing and insufficient use of available resources, the government being able to cover only 45-50% of health system expenditures.⁶ The Kyrgyz government has had to face the issues of worsening health among its population and insufficient resources to support a Soviet-style health system.

Impacts on Health Status and Tuberculosis

Economic decline has had a large impact on people's behavior and health, and, as indicated in Table 1, there has been a sharp increase in a number of communicable diseases in some parts of the region, such as tuberculosis, diphtheria, viral parental hepatitis, and HIV infection. (The latter is closely related to the sharp increase in intravenous drug use.)

Table 1. Infectious Diseases

	1991	1995	1996	1997	1998	1999	2000	2001	2002	2003
Tuberculosis incidence per 100 000 population ^a	56.5	73.3	87.5	112.6	108.9	131.8	150.9	135.1	145.8	138.2
New HIV cases ^b	0	2	2	2	6	10	16	149	160	132
Syphilis per 100 000 population	2.0	73.6	164.7	167.8	144.2	110.8	87.5	60.6	53.8	48.2

Note:

^a Data on the number of tuberculosis cases have included the penitentiary system since 1999;

^b Data on the number of new HIV cases are from the Republican AIDS Centre and include all cases registered in Kyrgyzstan, of both Kyrgyz nationals and foreigners.

Sources⁷

Even though mortality from infectious and parasitic diseases constitutes a comparatively small percentage of overall mortality (3.5%), morbidity has grown dramatically over the last decade. **The recorded incidence of tuberculosis more than doubled between 1991 and 2003, from 56.5 to 138.2 per 100 000. Multi-drug resistant tuberculosis is widespread and it is believed that prisons contribute greatly to the spread of the disease.** Some of these problems in the 1990s were due to the disintegration of health services and a lack of funds for drugs and immunization. Nevertheless, the general declining health status of the population reflected societal problems, such as: economic instability, unemployment, migration, organized crime, alcoholism, increased availability and use of illicit drugs, family disruption, and inadequate policy responses to these problems.⁸

Early Kyrgyz Reforms

Reforms began in mid-1994 with the designation of Issyk-Kul oblast as the national demonstration site, and the WHO-supported development of a national health reform program termed the Manas Program. The objectives of the Manas Program were to improve the health status of the population, to improve quality and equity, and to use available health care resources more effectively, and to do all of this while preserving access to health care for the population, with public ownership of health services, and with taxation as the main source of funding. The first, or short-term, phase (1996-1997) aimed at rationalizing services (down-sizing) by merging specialized inpatient facilities into general hospitals, reducing the number of facilities and staff, and strengthening PHC. The medium-term phase (1998-2000) continued the rationalization strategy and introduced new performance-based payment mechanisms. The long-term phase (2001-2006) aimed to improve efficiency and effectiveness, to introduce a purchaser/ provider split to health care financing, and to make hospitals autonomous.⁹

The strengthening of PHC started by establishing integrated polyclinics in urban areas and evolved to the introduction of Family Group Practices (FGPs) in Issyk-Kul oblast. Positive results obtained in Issyk-Kul oblast facilitated development of a productive collaboration among the government, the World Bank and USAID. In 1997, the Manas Program, financed by the World Bank, started to roll-out the Issyk-Kul health reform model to Bishkek city and Chui oblast. In 1998, the government began a process of rolling out health reform to Osh and Jalal-Abad oblasts in South Kyrgyzstan. World Bank-funded health sector reform projects (World Bank Health-I, 1996–2000, and World Bank Health-II, 2001–2005) aimed at structural changes in the health sector and supported integrated activities, including renovation and equipment of health facilities, grouping of FGPs into Family Medicine Centers (FMCs), strengthening of health information systems and health financing reform.¹⁰

Changing Infrastructure for TB Control

During the course of health care rationalization, under the Manas program, the TB sub-system underwent some changes. TB offices were integrated into FMCs, and rayon TB dispensaries were formally incorporated into rayon and city territorial hospitals, although the extent of integration may vary. In some cases, separate TB facilities are still used but are integrated administratively into the larger entity. Oblast TB hospitals and national TB institutions have not been impacted much by the health reforms, except for administrative and financial integration of the oblast TB dispensary into the Oblast Merged Hospital in Issyk-Kul, which is discussed in the Findings section.

The total number of TB institutions has declined over the last few years. By 2003, there were eleven tuberculosis hospitals, sixteen TB dispensaries, four adult sanatoriums, three anti-tuberculosis clinics for children, and one National TB Research Institute.¹¹ In July 2004, the National TB Research Institute was reorganized into the National Center of Phthiology, hereafter referred to as the National TB Center, or NTBC, under the Ministry of Health of the Kyrgyz Republic. The mission of the NTBC is to: identify, develop and implement primary and secondary research contributing to the development of phthiology science and practice; and to

deliver and coordinate TB treatment, diagnostics, prevention and consultative services within the scope of health protection of the population.¹² In the current system, the role of the NTBC has changed and continues to change, which is discussed in the Findings section.

Financing for Health Care and TB Services

Financing is not only critical for sustainability, but the manner in which a health sector secures, allocates and expends its funds creates incentives or disincentives for good service delivery. Health services in the Soviet era were financed through general taxation and centrally managed with emphasis on maintaining and expanding the existing network of health facilities, rather than improving the quality and efficiency of services. Funding of inpatient facilities was based on infrastructure, i.e., the number of beds, average annual bed occupancy and expected length of stay, resulting in the perverse incentive for hospitals to use as many beds as possible for as long as possible. For outpatient facilities, the main indicator was the number of visits. In general, the Soviet health finance system was characterized as being “supply driven” and tended to maintain a large workforce and infrastructure irrespective of current demand and medical necessity. Most of the resources were spent on curative care, with little emphasis on prevention or primary care.¹³

Currently, the Kyrgyz health sector is financed from the following main sources of funds: general budget revenues (republican and local); contributions to the Mandatory Health Insurance Fund (MHIF); the Public Investment Program; out-of-pocket payments; and external sources (including funds from donors and lenders). Budget revenue is formed from general taxes at the republican and local level and constitutes 44% of total health care spending. Thirty-two percent of that comes from the republican budget and 68% from local authorities. This revenue finances the State Guaranteed Benefit Package (SGBP) and covers the provision of free primary care from contracted FGPs, and inpatient care on referral, for which a co-payment is usually required. The basic benefits package also provides for free or nearly free referral care for certain categories of the population. All TB services are provided free of charge to all population categories.

The MHIF was established in 1996 and is responsible for the financing of health care services for insured persons. The MHIF receives transfers from the Social Fund and the republican budget on behalf of defined categories of “insured” persons, for whom enrollment is compulsory, including: employees in the formal sector; civil servants and public enterprises; private farmers; personnel of the Ministry of Defense, National Guard and forces of the Ministry of Interior; children under 16; enrolled school children under 18; and enrolled students of basic, secondary and higher professional educational institutions (except part-time and evening students) under 21; people with disabilities since childhood and persons receiving social and state benefits; pensioners; and registered unemployed individuals.

With the introduction of a single payer system, in 2001, the role of the MHIF increased substantially. The MHIF pools all local (i.e., rayon, city and oblast) budget revenues for health, creating a single pool of funds, and purchases services from these funds for the entire oblast population, thus becoming the single purchaser of health care in the oblast. Under health reform, the goal is to pool all available sources of funds for redistribution, according to performance-based criteria, to a system that enables local control of service delivery, and that emphasizes

prevention and primary care. Unfortunately, the MHIF experienced low transfer of funds and serious fluctuation of funds during earlier stages of reform, and thus funds for redistribution were limited.

As new financial planning and performance-based payment mechanisms have been introduced, the MHIF has contracts with service providers and finances them based on final outcomes or population needs (e.g., number of treated hospital cases for inpatient care and total number of persons enrolled in primary care; area population for providers of outpatient and sanitary-epidemiological services). In addition, new financing mechanisms aim at overcoming regional disparities through allocation of funds that take account of the population, remoteness and economic characteristics of regions.¹⁴ The new system has the following main characteristics and aims:

- Commitment to provide health care to 100% of the population within the State Guaranteed Benefits Program;
- Purchaser-provider split with the MHIF acting as the sole purchaser (the “single payer”) of health services;
- Consolidation of the sources of health funding (budgetary and MHIF funds and out-of-pocket payments);
- Pooling of budgetary funds initially at the oblast level, and then at the republican level;
- Replacement of unofficial out-of-pocket payments by more transparent official co-payments for some services;
- Resource allocation based on performance, irrespective of budget line items;
- Streamlining of the referral system and building it into the health care system, from primary to higher levels of care.

Currently, an important source of health financing is external funding which includes humanitarian aid, technical assistance, grants and credits. The amount of foreign aid in the 1990s was significant, and the National Health Accounts (NHA) database collected for 1998–2000 from the facility level shows that the level of foreign aid was as high as 10% of total health expenditure. However, there were considerable year-to-year variations, as some projects were phased out and others started.¹⁵ Part of Manas Taalimi is funded by a Sector Wide Approach (SWAP) for which the World Bank and several European funders, such as KfW and DfID, have pooled their funds to be used in implementing the new health system, while other funders, including USAID, contribute parallel funding, primarily in the form of technical assistance projects. Pooled funds are expected to reach an estimated \$50 million, while parallel funding amounts to as much or more. With the help of donors, the new system has increased the potential to pool significant amounts of funding to purchase a broad array of services for most of the population, including those at risk for, or infected with, TB.

TB services are currently financed from general taxation and external resources. Separate TB institutions do not receive financing from the MHIF insurance premium pool. The Ministry of Health has passed a Law on Protection of the Population of the Kyrgyz Republic from TB (18 May 1998). This law has been revised and amended twice, in 2002 and 2005. The MOH has also adopted the Tuberculosis-1 National Program (1996-2000) and the Tuberculosis-2 National Program (2001-2005), but the programs have not been sufficiently funded. According to

available data, the 2003 final TB budget was far below its planned level of \$4.3 million, and the situation remains the same today. Separate TB funds cover the NTBC, some training, separate facilities for treatment of intensive phase and chronic patients, and monitoring.¹⁶ TB drugs and laboratories are currently funded mainly by donors. From 2003-2005, the Global Fund to Fight AIDS, Tuberculosis and Malaria contributed about \$0.6 million a year for TB, distributed among objectives for detection, behavior change, treatment, and supportive environment.

The NTBC and TB dispensaries report under-financing and indicate that TB budget execution differs by year. Execution of the TB budget across rayons and oblasts ranges from 50 to 100%, which may be consistent with total health system budget execution. Detection and continuation services for DOTS are implemented within the MHIF-funded PHC services, but no provision is made for additional compensation for those services, which is discussed in the Findings section of this report. Given the lack of data, it is impossible to comment upon either TB spending at the outpatient level or out-of-pocket payments by TB patients. **In general, TB services have not had access to the large sources of pooled funding created under health reform, and maintaining a separate funding stream has not guaranteed a sufficient level of funding for TB.**

Prioritization of TB under the New Health Reform Program

Kyrgyz health reforms have achieved a number of positive results; however, the system needs further improvements, and as the Manas Health Reform Program finishes in 2006, the MOH of the KG, working with its partners in the SWAP, has developed its logical continuation in Manas Taalimi, which will reinforce previous changes and focus on the following objectives:

- Ensure fairness and accessibility to health services;
- Decrease financial burden of health services to the population;
- Increase effectiveness of the health delivery system;
- Improve quality of health services;
- Increase responsiveness and transparency of the health system.

The Manas Taalimi program has identified control of TB and respiratory diseases – along with maternal and child health, prevention of cardio-vascular diseases and their complications, and measures for HIV/AIDS/STIs – as a priority area. The strategy of Manas Taalimi is to integrate these formerly vertical systems, or specialized programs, into the general service delivery system to continue optimization of the system structure and to maximize use and appropriate allocation of resources.

The TB efforts will focus on reduction of TB morbidity and mortality by strengthening the DOTS program and implementation of the PAL (Practical Approach to Lung Health) strategy countrywide. The plan developed for the program supports many objectives that are consistent with the goals of the HC. The program¹⁷ will:

- Enhance the role of PHC facilities in prevention and treatment of respiratory diseases and TB;
- Further implement DOTS and PAL strategies countrywide on the basis of gradual integration of anti-TB and pulmonology services;
- Optimize management and coordination of activities on control of respiratory diseases and TB;
- Strengthen priority and support of activities on primary and secondary prevention of respiratory diseases and TB;
- Introduce effective evidence-based technologies on control of TB and respiratory diseases including establishment of immune interlayer among children (vaccination and re-vaccination against TB);
- Coordinate and develop bacteriological service and improve the quality of microscopy;
- Implement DOTS in the penitentiary system along with improvement of material and technical base, development of rehabilitation mechanisms for TB patients before release from places of detention and coordination between penitentiary and public health systems;
- Expand detection and treatment of MDR-TB.

FINDINGS

Relevance of KG Health Reform to WHO Objectives for Sustaining/Integrating DOTS

With respect to TB, the goals of Manas Taalimi are totally consistent with the goals of the WHO and the HC project regarding political support and integration. DOTS and other TB services are being implemented within the context of the large-scale health reform program that has been chosen and undertaken by the Kyrgyz Republic, with substantial support from donors and development banks. In the long term, reform has reasonable expectations of improving management and accountability at central and local levels, ensuring more equitable pooling and allocation of funds, providing accessible and affordable services at all levels of care, and establishing and monitoring evidence-based standards of care. TB services can benefit from these reforms while undergoing integration into the health system, as a step toward sustainability, as prescribed by the WHO. In the short term, realities such as under-funding of the entire health care system, difficulties in retaining savings within the system, on-going reorganization of responsibilities, competing priorities, and capacity issues have created challenges.

The greatest challenge is to ensure that TB is addressed and funded as a national priority while transitioning to integrated programming. Toward that end, that Manas Taalimi has designated TB a national priority creates possibilities for special attention and support mechanisms, such as earmarked funding drawn from a larger pool of funds. However, the long history of specialized programming for TB, played out against the early history of Kyrgyz health reform, has led to the perception of competing interests and serious polarization between TB specialists and the

broader health system. In practical terms, the NTBC has technical expertise and substantial experience with TB but little interest in integration; while the broader health system and health reform program create prospects for future funding and engage in decision making that is vital to the sustainability of TB service delivery. At the service delivery level, many TB specialists may have the perception that family doctors cannot deliver quality TB services, while many family doctors resent the addition of TB services to their work. All of this divisiveness currently threatens progress in all aspects of TB policy and programming. Addressing it is therefore a priority, and the policy findings and recommendations include a focus on how it can be addressed while using the impetus and potential created by Manas Taalimi to increase political support for, and integration of, DOTS service delivery.

While the policy assessment was comprehensive and explored all areas that are potentially related to sustained political support for DOTS, this section of the report is organized to reflect the areas that proved to be policy priorities in the KG:

- Coordination needs at the national level,
- Legislative and regulatory needs and opportunities,
- DOTS and primary health care service delivery issues,
- Interaction of hospital rationalization and TB care,
- Diagnostic capabilities,
- Basic reporting/recording of TB cases, and
- Monitoring and related data issues.

Coordination Needs at the National Level

Initially, the goal of political support in this project was intended to be achieved through the development of coordinating committees and working groups at the national level. With the support of the HOPE Consortium, the NTBC formed a high level working group, referred to as the Coordinating Committee for Tuberculosis, as a means of providing high level input for the NTBC “to further improve the policies and practices governing TB control in the country.” Intended as an executive policy advisory body with membership from key ministries of the republic, the Coordinating Committee also established TB-related thematic working groups on DOTS, laboratories, drug management, MDR-TB, TB/HIV, and prisons. These forums are intended to increase stakeholder input into protocols and to provide opportunities for collaboration and input to policy among the TB community. For example, substantial collaboration on TB in the prison system has been fostered across projects of USAID and other donors. However, over time, the coordinating committee and working groups have come to be thought of as associated with the NTBC, which defines priorities (Annex C) for each of the working groups. Some on-going problems are addressed, but opportunities are missed for representatives of several ministries to have an impact on better policies and the future sustainability of TB services.

As a result of focusing on the priorities of the NTBC, apart from the broader health system context, and being associated with advocating the retention of control that TB authorities have had in the past, neither the Coordinating Committee nor the working groups appear to have

fostered communication on sustainability and integration issues with some of the key counterparts in health policy, finance and service delivery. Many of the priorities of the NTBC are consistent with those of Manas Taalimi, but the program is seriously disconnected from major sources of decision making and financing that could increase political support and further the integration of TB control throughout the country. As members of the policy team met with key individuals in governmental programs advancing health policy, finance and service delivery, and key contributors to the SWAP, the team heard of a poor history of collaboration and encountered much skepticism about the idea that the NTBC – and those associated with the NTBC – might successfully collaborate to achieve political sustainability and integration of TB services in KG. Indeed, the HC USAID project officer reported hostility expressed in her own encounter with a key governmental counterpart.

Similarly, the KG Country Multi-sectoral Coordination Committee that was established to address the Global Fund priorities of TB, HIV/AIDS, and malaria is not well networked with either the Coordinating Committee for Tuberculosis or the broader KG health system. KG has depended on the Global Fund for partial funding of its TB drug supply, and the most recent KG proposal for funding was rejected. Several high-level interviewees expressed concern that the lack of substantial communication across institutions and interest groups may have contributed to a deficient proposal and the loss of this funding. (We do not know the reviewers' perceptions as the assessment team was told that no formal meeting could be arranged with the Fund representative.)

The broader concern of this report is that divisiveness between TB and health reform communities at the national level separates the experienced TB community from prospects for effective management, increased funding and improved service delivery that are now within the purview of Manas Taalimi. The situation also limits the prospects for the NTBC to develop into a strong Central Unit for TB (as the term is used by WHO) within the context of the broader health system. Coordination is not simply an issue of working groups created for a single purpose. Coordination, more broadly, addresses the interaction between all national entities involved in funding and decision making for the implementation of DOTS and other TB services. As the MOH reorganizes to implement reforms, it will be important for TB interests to be represented “at the table,” particularly in the MOH’s new Department of Policy and Strategic Planning, where policy decisions will be formulated, and in the newly developing Center on Health Systems Development, which can serve as an institutional setting for the type of program-based operational research that the WHO recommends as an integral component of DOTS implementation. These are national settings where TB, service delivery, and finance experts can collaborate to implement all of the planned improvements that are advocated for TB as a priority program under Manas Taalimi.

Legislative and Regulatory Needs and Opportunities

One indicator of political commitment is the number and quality of legislative and normative acts and regulations. The Kyrgyz Republic has developed significant legislation concerning TB control (see Annex B). The 1998 Law “On Protection of People from Tuberculosis,” amended in 2002 and 2005, established free-of-charge, universal access and equal rights principles in TB

activities carried out by government. Other laws have addressed TB in the penal system and the involvement of primary health care providers in TB service provision. Prikaz 285 is still the defining legislation for much of the TB service activity, although other laws and orders are relevant. Many interviewees – in primary health care, in-patient settings, and prison-related programs – cited provisions needing revision in Prikaz 285.

The Manas Taalimi program (alternatively referred to as the “national program”), in its current plan, has gone furthest in designating DOTS as a main strategy for TB control in KG. The program plans a revision of key TB-related regulatory and legislative documents at central and local levels. The general goals are to “ensure continuity of services, regulation of directing and redirecting patients” as well as the stability of implemented programs. Specific goals to be addressed in legislation and regulation include the general optimization of the medical network and its anti-TB services, organization of TB treatment in penitentiaries and coordination with public health, revision of the role of the TB specialists in FMCs, and strengthening of the role of PHC facilities in prevention and treatment. “Optimization” is often used interchangeably with “rationalization,” so we must understand that expected changes can include further reduction of TB beds or facilities, if warranted, and possible consolidation of TB facilities with other institutions for reasons of economizing and improving efficiency. In discussions of optimization, role definition, and strengthening of facilities and networks, and subsequent development of supportive legislation and regulations, it will be critical to have TB, health system, and finance experts work together on these issues. Findings in the following sections suggest that some regulations for general health service delivery, such as hospital bed use, may also impact TB service delivery and would benefit from discussion between TB and health system experts.

The national program explicitly calls for the elaboration of incentives, most likely financial incentives, for PHC staff to ensure accessibility and provision of good TB services (see discussion in PHC section). Funding for TB detection and the continuation phase of DOTS in PHC are already outside of the purview of the NTBC. More broadly, the national goals in health financing address the balancing of state commitments to the SGBP and priority programs. All of TB funding will have to be addressed, and informed input will be needed, as changes are made in TB service delivery. As these and other DOTS services are prioritized in the Manas Taalimi program, given the urgency of TB detection and treatment in KG, an argument can be made for funding to be temporarily earmarked, irrespective of system-wide under-funding of health care, and for a share of the larger pool of resources that have become available under health reform. To argue for a larger share of the overall funding, and to protect that share by legislation or regulation, TB advocates must work with those who control the overall health system funding and those who create system-wide laws and regulations. This is especially true because we are not advocating that the TB system be maintained separately, or “vertically.” We are advocating earmarked financing only while TB morbidity is at alarming levels and costs and other burdens to the health system may escalate in the future if they are not adequately addressed in the short term.

Other Manas Taalimi objectives, referred to in other sections, can be written into laws and regulations with the objective of sustaining and integrating DOTS service delivery. In general, the national program calls for the “elaboration and adoption of a national program on TB control for 2006-2010.” This does not refer to the program of the NTBC; it refers to the way in which

TB control will be implemented throughout the country, using the health system resources of the KG and implemented by its national and local institutions. The MOH's new Department of Policy and Strategic Planning and the Center for Health System Development will be key participants in the development of the national TB program.

The national program also calls for "further development and revision of existing clinical protocols and guidelines on major respiratory infections for various levels of health care delivery based on principles of evidence based medicine with following implementation and drug inclusion to the list of vitally important drugs." The stated intention is for this activity to include the Coordinating Committee for Tuberculosis, in addition to MOH offices, the MHIF, and other authorities. This effort will need to include various perspectives and types of experience that are relevant to service delivery. After development and revision of the protocols and guidelines, they will need to be incorporated into a regulatory framework that supports quality of care and that has the official approval of the MOH.

DOTS and Primary Health Care Service Delivery Issues

Integration of TB with other services has been implemented in all regions but not in Bishkek. Under integration, the primary health care level implements both detection and continuation services in the DOTS continuum of service delivery, and PHC physicians and nurses have been trained for these services. At this point, not all PHC physicians and nurses have received DOTS training, and high turnover of staff may hinder the process, but both generalist and specialist practitioners interviewed by the team acknowledged that properly trained family physicians have opportunities to increase the number of cases diagnosed.

The FGPs were formed in the early days of health reform when specialists (theraputists, peditricians and obstetrician/gynecologists) were retrained as family physicians to provide comprehensive PHC to families registered with the FGP, and the MHIF pays per capita to cover these services. FGPs are now being grouped into larger Family Medicine Centers so that each FMC contains a number of FGPs, which may be co-located or dispersed. Consumers still sign up with the FGP of their choice, but grouping FGPs into larger units provides opportunities to consolidate and save costs on administrative functions and some out-patient specialty services. Each FMC has one financial manager, one TB specialist, and a variety of diagnostic and laboratory services.

A family physician who makes a diagnosis of TB refers the case to the TB specialist for confirmation. After confirming the diagnosis, the TB specialist fills out the required forms, and refers the patient to a TB dispensary. He then oversees the delivery of continuation TB services by PHC staff in the FMC, and manages the flow of patients and paperwork between the services delivered by PHC and intensive phase services, which are delivered at the secondary level. TB patients are then referred back to the primary care level for continuation services, while case management in the continuation phase remains the responsibility of the specialized TB services. The referral system needs improvement to ensure that patients actually go on to receive the continuation services. In some cases, patients who have long been accustomed to receiving specialized services from narrow specialists may not have sufficient confidence in the family

physicians' ability to delivery continuation services. This also needs to be addressed within the context of the referral system.

The SGBP guarantees provision of free DOTS services to the population of KG. Some of these services, such as case detection and continuation services, are being delivered by FGPs. However, no additional funds for TB services have been included in the capitated payment. Primary health care personnel were already dealing with an increased workload as a result of the early health reforms which sought to better utilize health care personnel who had been underutilized in the Soviet system. FGP personnel became responsible for comprehensive primary health care services and some delegated specialty services. The addition of DOTS services, particularly without additional funding for either the DOTS services or the support services that are often needed by the TB-infected population, has therefore been viewed by many family physicians and nurses as an unfair burden. It is likely that TB-related services are a small part of the workload, but perception has been tainted by the heavier general workload imposed by health reform and the timing of the later addition of the DOTS services. Negative attitudes have developed among PHC providers in spite of their appreciation for the benefits of primary care, and increased access for consumers, that were fostered during the early development of FGPs. Indeed, a majority of TB cases are now diagnosed at the PHC level, most when patients come to the FGP for a different reason. Some PHC doctors and nurses interviewed noted that the new system has advantages that should increase detection and encourage patient adherence to treatment requirements, but they protested the size of their workloads, in general, and having their workloads increased again without additional pay.

To address the resistance of PHC personnel, an attempt was made to develop a national scheme of incentive pay for TB detection. Family physicians would receive 100 soms for each detected case; however, because of scarce resources and operational difficulties, there was spotty implementation and the incentive pay is considered quite small. At present, the financial manager of each FMC has discretion to create incentives out of funds received through capitated payments, after a required amount has been paid out for salaries. However, given the general under-funding of health services, discretion cannot create much of an incentive out of a portion of a fund that is already too small. It was pointed out that administrators can use co-payments from non-TB services to subsidize TB services, but even that did not resolve the problem. As noted, the Manas Taalimi program includes the elaboration of incentives at the PHC level for TB services. The ZdravPlus project is already working on these incentives, including an innovative proposal for primary and secondary levels to share incentives for completion of DOTS therapy. Apart from the cost of potential incentives, officials in the health system reported that they did not have good data on the cost of TB services at the PHC level and therefore have no basis to assess the extent to which the addition of TB services impact the current capitated PHC payment. There is a need for more data on current and projected costs of TB service delivery at the PHC level and subsequent adjustment of the PHC capitation rate, as well as development and testing of incentive plans to address any residual resentment among PHC practitioners that may be obstructive to detection of TB and delivery of DOTS services.

The perceived burden added by DOTS services at the PHC level, the extent of social support needed by TB patients, as well as the need for good communication and working referrals and counter-referrals between TB detection, the intensive phase, and continuation services, suggested

to the team that we explore ways to better define roles and responsibilities and the flow of services, both between intensive and continuation services, and within the PHC level. For example, Manas Taalimi has committed funding to upgrade the feldsher/obstetric post (FAP) level, which may provide opportunities to increase community-based referrals for testing and detection and to better address some of the TB patients' social and logistical needs. As possibilities for enhancing the DOTS program are expanded at the local level, this would be a good time to also work with the FGP/FMC level on better definition of roles and responsibilities and on retraining, as needed, for DOTS service delivery.

Interaction of Hospital Rationalization and TB Care

Secondary health care is provided at specialized outpatient and general hospital levels. Currently, health providers at the general inpatient level include a number of different facilities: territorial hospitals (in oblasts or cities), affiliates of territorial hospitals, rural district hospitals, children's hospitals in cities, maternity houses, and oblast merged hospitals. The financial arrangements under the single payer system required a new organization of health care facilities, and by 2004 rayon hospitals were transformed into "territorial hospitals" or affiliates of territorial hospitals. The reorganization has resulted in greater centralization at the rayon level, as the director of a territorial hospital determines the structure of its affiliates. Also as a result of the restructuring, city hospitals were transformed into territorial hospitals through mergers of health facilities situated in the same city and the closure of inefficient facilities or their transformation into FGPs or FMCs that are expected to more efficiently use the resources to deliver more services. Tertiary care is provided by the republican health facilities at the national level (national hospitals, centers and scientific research institutes) and specialized dispensaries and hospitals at sub-national levels. These facilities are narrowly specialized and cover tuberculosis (the facilities of the NTBC), cardiology, oncology and radiology, obstetrics and pediatrics, treatment of infectious diseases and treatment of mental illnesses.

Throughout the country, hospital beds have been reduced, including beds for in-patient TB treatment. In most oblasts, the TB dispensaries that provide the intensive phase of DOTS treatment have remained separate entities, but they are not excluded from optimization goals that impact the entire system. There is simply no way to stretch existing resources without changes in service delivery that save resources. One likely strategy is to incorporate TB dispensaries into oblast merged hospitals (OMHs). OMHs were the result of restructuring in 2000. They provide specialized outpatient care and general and specialized hospital care at the oblast level. With the exception of the republican facilities, which are primarily located in Bishkek, these providers have the largest capacity throughout their respective oblasts and are usually situated in oblast capitals.

In Issyk-Kul oblast, after implementation of DOTS as the main TB control strategy, the TB dispensary became part of the Oblast Merged Hospital, which merged several secondary facilities under one hospital administration. Elsewhere in the oblast, two facilities for chronic TB cases remain under the jurisdiction of the NTBC. Within the OMH, the former head of the TB dispensary retains authority over technical issues for what is now the TB ward, coordinates referrals to continuation therapy, and is accountable to the NTBC on programmatic and

epidemiological issues. He is under the administrative supervision of the head of the OMH, who has authority over the hospital budget.

While TB in-patient services are still funded by a line-item allocation intended only for TB, the head of the TB ward maintained that, under the merged system, TB funds were being diverted for other purposes in the merged hospital. Our team did not see data that confirmed this, and, while a prior inquiry made by the ZdravPlus project at the Oblast Health Insurance Fund reported similar discrepancies and noted that 10% of the TB funds were used for other merged hospital needs, there appear to be no precise data to confirm that. In general, the TB director maintains that TB funds are diverted, while the OMH and MHIF representatives maintain that TB dispensaries benefit from reallocation of resources from other paid services, and neither position is confirmed by data. Nevertheless, it is clear that TB funding is not currently protected by law under a merged hospital arrangement. Because of the claim that TB funds are being diverted and some other issues, the NTBC initiated a process to eventually separate the TB services from the merged hospital. Also notable was the lack of coordination among the TB ward in the OMH and the TB facilities for chronic cases in the oblast, which were under the authority of the NTBC.

Other issues seen in Issyk-Kul were not unique to the merged hospital situation and were also noted in other facilities. For example, the TB coordinator was convinced that a regulation related to a minimum number of hospital discharges required per month was reducing the average length of TB treatment. Data did not confirm that that had happened, but the possibility points to a need to examine and possibly address this regulation at the national level. While some observers suggest that too many TB patients are hospitalized – and more patients could be treated by ambulatory services – that issue should be addressed by triage and referral patterns, not by random requirements for hospital turnover. Other issues raised by the TB coordinator in Issyk-Kul include the lack of funds for renovating a sub-standard TB facility and lack of transportation for the TB coordinator to participate in monitoring visits elsewhere in the oblast. Most of the problems with insufficient funding appeared to originate at the national level, but TB personnel were convinced that it was a by-product of the oblast merged hospital situation, and several rumors were adding fuel to this fiery conflict. For example, the TB coordinator maintained that the World Bank had committed funds for a new oblast TB facility and that the head of the joint hospital had appropriated the facility for other purposes. When interviewed by our team, the World Bank representative emphatically denied that funds for a new TB facility had been committed by the World Bank. The representative was deeply concerned about the time and effort that had already gone into attempting to dispel this rumor.

A study (by ZdravPlus) is planned of the OMH in Issyk-Kul, but given an absence of baseline data from the pre-merger period, results may not resolve all of the issues. The Issyk-Kul experiment is important because it illustrates the expected course of health reform (efforts to consolidate and conserve resources, streamlining of service delivery and administration, etc.) being derailed by conflicts between the old TB system and the new health system, and a lack of sufficient regulatory protection and delineation of roles and responsibilities to obviate the conflict. If these relationships are not improved, if anomalies at the regulatory level are not resolved, and if roles and responsibilities are not better defined, health authorities can continue to make decisions about TB funding and service delivery without input from TB authorities, and

TB authorities can continue to operate in isolation, focusing on limited networks and inpatient care, while losing access to funding, linkages to PHC, and input into data systems that are vital for DOTS implementation.

Outside of Issyk-kul, responses of administrators were more balanced. However, when a health system is in transition, they often have a mix of funding strategies – in this case, the old system of line-item budgeting for some items (such as TB services), case-based payment (most inpatient services) and capitated payment (PHC services) for others. In some cases, there is dual, transitional reporting, so that funding may be received according to one strategy and accounted for according to a future strategy. In addition, budgeting at the national level has changed significantly, as it is no longer supply driven by salaries and facility costs, but budgeting at the service delivery level has not changed significantly. It was clear in our interviews that we were looking at a transitional system, and that administrators were not yet sufficiently trained and experienced to assess the impact of the financing changes on TB service delivery. Other aspects of the changing system were equally confusing to them. For example, given the reduction in the number of hospital beds to eliminate unused beds, and the use of case-based hospital payment to increase efficiency, hospital administrators did not know whether it was beneficial to their facilities to try to keep the beds filled or to try to achieve faster turnover. In other words, they were trying to “game” the system without knowing the rules of the game.

An important perspective for our team to maintain is that some confusion is predictable at this point in the progress of KG health reform, and that complaints from health personnel and administrators trying to do difficult and rapidly changing jobs cannot be viewed as “data” indicating that the entire system is headed in the wrong direction. They can, however, be viewed as evidence of issues that need to be addressed. In this case, they point to a need for additional training of TB facility administrators in the financial and administrative consequences of the health system reforms. Throughout the assessment, the financing issues and administrative training needs were conveyed to counterparts and projects that were working on health system financing and the training of administrators. These issues are expected to be addressed under Manas Taalimi.

Diagnostic Capabilities

The team’s TB advisor noted that TB case finding in the KG still relies heavily on mass X-ray examination, mostly because of the use of the old Soviet approach, based on Prikaz # 285, which requires mass screening X-ray examination for teenagers and up to 15 different risk groups. Rough calculations show that detection of one TB case by X-ray examination costs up to 352.4 reference units, while detection of one case by smear examination costs only 28.3 reference units. Increases in the laboratory workload may contribute to continued over-reliance on X-ray examination, however, X-ray screening is standard for other lung diseases, in addition to TB.

Currently, nearly one-third of new TB cases (1880 out of 5756) are extra-pulmonary. To address the possibility of insufficient diagnosis at an earlier stage, the Manas Taalimi program proposes training, skill improvement, and the provision of needed equipment for FAPs, FGPs, and FMC laboratories. Policy leading to the reduction of laboratories appears to be successful in using

available funds more effectively and in increasing the quality of smear examinations, as the smaller number of laboratories each examine a larger number of smears. The NTBC recently finalized “Guidelines for Microscopic Examination,” but additional guidelines are needed, as well as a quality control system and a new reference laboratory. The Manas Taalimi program includes development of monitoring and evaluation of microscopical research quality, establishment of centralized reference laboratories in Osh and Bishkek, as well as the establishment of oblast bacteriological laboratories for MDR-TB diagnostics. The Project HOPE Regional Laboratory Specialist has noted the need for a national laboratory strategy in KG.

Basic Reporting/Recording of TB Cases

The NTBC has made progress in reporting and recording of TB statistics in the last four-to-five years (Annex D); however, a double reporting/recording system exists in Kyrgyzstan, using both old, modified Soviet forms and WHO forms, with more than 50 different recording and reporting forms that create the following problems:

- Inaccurate and incongruent data;
- Use of different criteria (WHO versus modified old Soviet) to evaluate TB program success;
- Difficulty making estimates necessary to plan further steps under the TB program.

Existence of the double recording system and different criteria for registration of new TB patients makes a difference in the number of new patients registered under National and WHO statistics. This may be partially motivated by the national system’s need for management data, with criteria that differ from epidemiological data, but the differences between the NTBC and the national system mitigates against development of a rational system that addresses both needs. It is also hard to estimate prevalence of TB and the number of chronic cases in the country because of the double registration system and the different criteria utilized. The current TB Prikaz #285 does not include the WHO recording/reporting system. Instead, the modified old Soviet form # 33, introduced in 2004, contains numerous inconsistencies, such as table # IV of the form, regarding treatment results, which combines results of treatment of new pulmonary TB patients from the previous two years.

There does not appear to be good coordination between HIV/AIDS and TB reporting systems. Data provided to our team about HIV and TB co-infection appeared inconsistent. The numbers of HIV-positive and AIDS cases were surprisingly small, especially in view of the size and conditions of the prison population; and the number of patients with TB who were HIV positive appeared to exceed the number of designated AIDS patients. Our team did not fully explore these anomalies, but, in view of the populations at risk for co-infection, including prisoners and injection drug users, there is clearly a need to ensure coordination between HIV/AIDS and TB systems and to have accurate reporting of co-infected individuals.

Monitoring and Related Data Issues

According to the TB law, the NTBC provides monitoring of TB program implementation, while the national Sanitary and Epidemiological Service (SES) is excluded from this monitoring but engaged in surveillance and community hygiene. Under Manas Taalimi, the SES role in epidemiological analysis is being examined and redefined, and plans include analysis of all information gathered on respiratory diseases, as well as special emphasis on monitoring and evaluation of microscopical research quality and monitoring of anti-TB measures in penitentiaries. At the national level, there will be opportunities to develop compatible monitoring and surveillance systems, as well as the alignment of roles and communication patterns to ensure that service delivery is responsive to epidemiological needs. There especially is an opportunity to develop a strong monitoring role for the NTBC, which has been concerned about how its functions might change under Manas Taalimi. Health system counterparts declined to comment on the future role of the NTBC, but it is unlikely that the NTBC's technical knowledge and its relevance to monitoring would be disputed.

Currently, at national and local levels, and between NTBC and other institutions, there did not appear to be a shared understanding of what is meant by TB monitoring. Certainly, monitoring of the quality of specific services is needed, particularly adherence to evidence-based standards that underlie DOTS and other TB service delivery. Equally important, is the monitoring of data on costs and service delivery that can determine if resources are well used and if accessibility goals are being achieved. Ideally, data in all of these categories would be collected for a uniform monitoring system, which would enable data use at the facility level for self-review and continuous improvement, as well as data use at higher levels for compilation of statistics, planning, external review, and enforcement of regulations and standards.

All of these suggested improvements in systems that allow coordination between monitoring and surveillance at the national level, and collaboration in monitoring among facility, oblast and national levels would require: 1) coordination between NTBC and national agencies working on surveillance, health finance, and planning of health service delivery, and 2) a re-orientation of local and national personnel on the uses and benefits of monitoring data. The first requirement points, again, to the need for NTBC and other national players to develop better working relationships. The second requirement relates to the historical use of monitoring data in the region, which has primarily been characterized by a punitive approach, typically using data to demonstrate a problem and to assign a penalty. This approach tends to encourage health personnel to manipulate data to hide problems. Modern approaches advocate the use of data to continuously look for problems and to quickly address any that are found. A modern approach is especially important at the facility level because a lot can be hidden from the scrutiny of external monitors.

SUMMARY OF CONCLUSIONS

In spite of a commitment in the Kyrgyz Republic to the implementation of DOTS, our findings reveal that there are many TB issues still needing to be addressed at the policy level. Fortunately, the designation of TB as a priority program under Manas Taalimi, paves the way for new legislation; improvements in service delivery, reporting and monitoring; and access to

increased resources, including the possibility of increased and earmarked funding for TB. TB advocates can become proactive and take the lead in devising more detailed TB control program activities and action plans within the framework of the Manas Taalimi program, sharing and discussing their vision of TB sub-system development with health reformers and members of civil society. At this point, there is a lot to be gained by fostering collaboration to engender maximum political support in KG, to ensure access to sufficient resources to address TB needs, and to get the most experienced counterparts involved in critical decisions impacting TB service delivery and resource use.

To some extent, the KG situation is typical of a traditional specialized, vertical program under circumstances of health reform. However, in most developing countries, TB programs have been more recently introduced and sporadically funded by donors. By contrast, in the former Soviet Union, TB programs have had decades of development and entrenchment, including the growth of significant infrastructure for the programs and the accumulation of significant power for their leaders. These situations do not easily yield to change. The KG government has already designated TB a priority program and has plans for many of the improvements that we recommend. The critical issue is bringing together all stakeholders who can usefully contribute to those decisions. These are the key needs that this report has recommended to be addressed in KG to improve sustainability and integration of TB control:

- Improved coordination and communication at the national level between health sector reform counterparts and TB counterparts. It is critical that they work together on the Manas Taalimi tasks to improve TB policy and service delivery over the next 5 years.
- Strengthening of the NTBC to develop as the Central Unit for TB control.
- Examination and revision of TB-related legislation and regulations, and further development and revision of protocols and guidelines. These activities are already planned under Manas Taalimi.
- Improved financing for TB, including temporary earmarking of sufficient funds to decrease TB-related morbidity, and provider incentives to improve TB service delivery.
- Assessment and improvement of the TB referral system between levels of care and better definition of roles and responsibilities and lines of communication in TB control.
- Upgrading of laboratories, reporting and recording systems, and monitoring and surveillance, much of which is already anticipated under Manas Taalimi.
- Additional training, including DOTS training of FAP providers who are going to be engaged in the TB service delivery system, and DOTS training for PHC providers who are untrained or need re-training; and additional training of TB facility administrators in the financial and administrative implications of health reform.

RECOMMENDATIONS AND YEAR 3 PLANS FOR THE HC POLICY COMPONENT

The goal of the HC policy activities is to achieve sustainability of TB service delivery and TB control, with an emphasis on DOTS, at a level that reduces morbidity and mortality from TB in KG. Sustainability requires both integration into the broader health system and sufficient funding. The policy actions to work toward these goals, within the resources of the HC project, are to work with the health sector leaders in KG as they develop the health sector and revise its policies and re-allocate resources; and to assist the NTBC to develop as the Central Unit for TB control within the KG health system. HC staff will provide analyses and additional support for the development and presentation of policies that support the objective of sustainability. A major goal is for counterparts to be better positioned to continue this work after the HC project ends. Year 3 will emphasize activities that can quickly engage HC staff and that bring health sector and TB personnel together to improve TB control in KG.

Role of the HOPE Consortium in the TB Community

Project HOPE has long been associated with TB control in the region, and the HC project has strong credibility in the areas of clinical expertise and training. Project HOPE is also closely identified with the NTBC and key TB personnel. There can be a negative aspect to that, given the issues that have emerged between TB and health sector counterparts in KG. However, Project HOPE is also in the best position to work with and assist the TB counterparts to appropriately engage with the health reform counterparts. Only by doing that – by bringing both sides “to the table” – can TB control expect to achieve the highest level of funding and the optimal amount of expert input into critical decisions about the future of TB service delivery in KG.

The first recommendation is for the HC to expand its focus on political support beyond the work that is already on-going with the HLWG and the TWGs in KG. This is an excellent time for the HC to broaden its approach, as the policy component is becoming more active, and new members of the team have experience with health reform in Kyrgyzstan and good relationships with a broad range of counterparts and potential partners. A broader approach entails increased communication across components of the project that are impacted by policy, and a focus on new and practical ways for the NTBC to have a substantial role in the new health system, with DOTS service delivery benefiting from NTBC input and also receiving adequate resources and support from the larger health system. This recommended approach is consistent with the WHO approach that associates sustained political commitment with increasing resources to “make TB control a nation-wide activity and an integral part of the national health system.”

Based on experience in many countries, the TB community is often skeptical about gaining support from the larger health community. However, in the case of Kyrgyzstan, 1) the larger health system has access to more funding than the TB community, and it controls most of the financial and other resources that can support TB service delivery, and 2) by designating TB as a priority program under its health reform program, the country has made a substantial and public

commitment to its constituents and its funders. Conditions in KG are probably as good as they will ever be for advancing the interests of TB control among the broader health community.

Coordination at the National Level

Policy objectives: Successful coordination addresses the interaction between all national entities involved in funding and decision making for the implementation of DOTS and other TB services. For the HC, this can be done by providing support for the elaboration and adoption of the national program on TB control under Manas Taalimi, and especially by bringing key TB counterparts into that process. It is critical for TB counterparts to be involved with the major forums and institutions that are determining the course of change in the Kyrgyz health system. The general approach for technical assistance in this area is to provide analytical support on key TB-related policy issues, working with both TB and health counterparts and bringing both sides together for discussion and decision making.

Recommended activities for Year 3:

1. Establish a working relationship on TB issues with the MOH's Department of Policy and Strategic Planning and the Center on Health Systems Development (CHSD). If these units are still in the process of being set up, work with Manas Taalimi program participants to establish a process for HC participation.
2. Develop data needed for at least one of the key TB issues to be addressed by Manas Taalimi this year (see recommendations below); seek input from the NTBC, PAL, and health system counterparts; organize meetings for those counterparts to discuss data needs and policy options.
3. Develop an operations research plan, to support TB activities, with input from TB and health system counterparts; obtain commitment from both the NTBC and the CHSD to collaborate and support these efforts.

The goal for Year 3 is for the HC to broaden its working relationships, become a potential bridge-builder between TB and health system communities, and to have started a productive dialogue between TB and health system counterparts on at least one major issue.

Development of a Central Unit for the Control of TB

Policy objectives: While coordination is critical, the TB program needs a Central Unit, to provide critical technical inputs to the national system and to manage the TB services. In view of the expertise and experience of its leadership and personnel, as well as its monitoring unit and national reference laboratory, the NTBC should be supported in developing this role. As the Director is interested in developing the broader scope of pulmonology – which would include

PAL, MDR-TB, TB/HIV, asthma, COPD, bronchial carcinoma, and pulmonological infections – this suggests the need for assistance to develop into a larger institution, within which the Central TB Unit can be delegated to an individual who is focused on the TB issues.

Recommended activity for Year 3:

1. Work with the Director of the NTBC and the HLWG to develop a vision and a plan for the NTBC to develop into a broader institution that is focused on pulmonology and incorporates a Central TB Unit. Through the HLWG, seek input from other key actors in the health sector.

The goal for Year 3 is for the HC to build on its history of a good working relationship with the NTBC by helping that institution start on a path of focused development that is compatible with both WHO guidelines for TB programs and KG national objectives.

Legislation and Regulation, including Related Development of Guidelines

Policy objectives: Manas Taalimi will conduct a review of key legislative and regulatory documents related to TB, which can impact on the future structure and funding of TB services. This review is expected to include experts in TB, finance, systems design, and health service delivery. The HC can play an important role in facilitating this dialogue, in furthering the interests of TB control and also ensuring that legislation and regulations not specifically targeting TB – such as regulations related to hospital in-patient turnover – do not negatively impact on TB control. Additionally, regulations will be drafted that support protocols and guidelines, and some of those will need development and involvement of the TWGs.

Recommended activities for Year 3:

1. Provide analytical and logistical support to TB counterparts in developing and presenting their legislative and regulatory needs to the broader group. Encourage engagement of the NTBC and the TWGs in the on-going national review of legislative and regulatory documents.

The goal for Year 3 is for the HC to help TB counterparts have input into at least one significant improvement in TB-related legislation or regulation, and to do so by working collaboratively with Manas Taalimi counterparts.

Financing, including Level and Sources of Funding and Incentives

Policy objectives: As suggested in this report, while TB morbidity is at a critical level, TB services need to secure a larger share of health care funding than they currently have, and that funding needs to be temporarily earmarked and protected by law. At present, there is a separate line item for the NTBC, but not all TB services are adequately covered. Several analytic activities are needed to determine costs of some services, such as those delivered under primary

health care, and to examine data already collected on the cost of in-patient services. Additionally, the development of provider incentives to ensure good service delivery, particularly at the PHC level, will require operations research to determine effective approaches.

The USAID Mission expects the ZdravPlus project to lead the broader work on health systems and finance. ZdravPlus does limited work on TB financing, and the HC will coordinate with that project to ensure that work on TB financing is not duplicated and to benefit from extensive experience with health finance in KG; to contribute a TB perspective to a dialogue on broader issues that impact on TB, such as provider incentives and the general flow of funds and the reallocation of funding; and to focus the HC on critical TB financing needs that are not otherwise being addressed.

Recommended activities for Year 3:

1. Develop a projection model, outlining current and future costs of TB in KG under alternative scenarios for levels of funding. Some inputs for this model should be forthcoming from ZdravPlus, as that project is conducting a structural and financial assessment of TB services in KG that should clarify what is being spent on TB by levels of care. The HC can provide the remainder of the inputs and lead the development of the projection model.
2. The HC should engage a variety of stakeholders – including the NTBC, the MOH’s new Department of Policy and Strategic Planning, and the Center on Health Systems Development – in the planning, development and use of the projection model to impact on policy revision and financial planning for TB under Manas Taalimi.

The goal for Year 3 is to ensure that analytic activity begins on TB financing, specifically on the level of financing required for TB, and to provide more TB perspective (from HC staff and TB counterparts) to the discussions of finance reform that take place under the Manas Taalimi program.

Clarification of Roles, Responsibilities and Lines of Communication

Policy objectives: Our findings note the need for clarification of roles, responsibilities and flow of TB service delivery at primary and secondary levels, and a need to achieve consensus and alignment on complex procedures such as dual reporting for TB coordinators on programmatic and administrative issues. The FGPA will start working on revision of PHC personnel roles and responsibilities and welcomes collaboration with HC and NTBC on TB-related issues. Referral and record-keeping processes are already in place between detection and the intensive and continuation phases, but some informants noted a need for improvements, and additional needs will arise as optimization efforts proceed. In addition, as Manas Taalimi expands its activities to the FAP level, there are opportunities to engage additional community-level personnel in addressing the needs of TB patients and decreasing the TB workload of FGP personnel, and that will require additional work on roles, responsibilities and flow of local TB service delivery.

Recommended activities for Year 3:

1. Collaborate with FGPA on its efforts to revise roles and responsibilities of PHC staff, focusing on the TB services that are implemented within PHC.
2. Collaborate with FGPA, NTBC, Manas Taalimi, and ZdravPlus to review the flow of TB service delivery in PHC and develop potential reconfigurations with the addition of FAPs. Identify any needs for studies on this issue and incorporate them into the plan for operations research (noted above).

The goal for Year 3 is to ensure that improvement of TB service delivery is incorporated into the goals of upgrading the FAP level of care, and that TB counterparts are engaged in national decision making about the reconfiguration of service delivery.

Planning and Analytic Support for Improvement of Laboratories

Policy objectives: Laboratory deficiencies appear to seriously impact on the detection of TB in KG. The Manas Taalimi program will support several improvements in the laboratory network, and the Project HOPE Regional Laboratory Specialist has noted the need for a laboratory strategy and guidelines for KG. The policy component will support that work.

Recommended activities for Year 3:

1. Support the Regional Laboratory Specialist and the TWG on laboratories in their development of a laboratory strategy, focusing on issues for which policy input is needed.
2. Facilitate the inclusion of the Regional Laboratory Specialist in all Manas Taalimi activities related to laboratory improvements.

The goal for Year 3 is for the HC and the TB counterparts who work with the Regional Laboratory Specialist to become a major source of input into Manas Taalimi plans to fund and implement laboratory improvements.

Reporting, Monitoring and Surveillance

Policy objectives: A major objective is to help the NTBC develop a stronger TB monitoring role by the time the project ends. KG needs to have compatible monitoring and surveillance systems for TB, and the HC can assist counterparts in addressing TB data needs at national, oblast, and facility levels.

Recommended activities for Year 3:

1. Support the NTBC and its working groups in developing guidelines for monitoring of TB, also contributing to the discussion of clear lines of responsibility for the NTBC and SES and complementarity between the two organizations.
2. Work with both health system and TB counterparts to clarify data needs at oblast and facility levels and to develop a plan to engage local level counterparts in development and implementation of TB monitoring.
3. Coordinate with prison and TB/HIV co-infection components of the project to define specialized data issues that need to be addressed by monitoring and surveillance systems.

The goals for Year 3 are to achieve consensus on the parameters of monitoring and surveillance, and on TB data requirements at national, oblast and facility levels; and to support the NTBC in making strong progress on national monitoring guidelines for TB.

ENDNOTES

¹ WHO/Europe Computerized Information System for Infectious Diseases (CISID), <http://www.euro.who.int/tuberculosis/ctryinfo>.

² Under this objective, USAID includes the integration of TB control within a reformed health system, strengthened laboratory networks, strengthened human resources capacity, the creation of a rational drug management system, and improved program management of treatment outcomes. See USAID Health: Infectious Diseases page, http://www.usaid.gov/our_work/global_health/id/tuberculosis/countries/eande/car_profile.html.

³ *Global Tuberculosis Control: Surveillance, Planning, Financing*, WHO Report 2005, Geneva, World Health Organization (WHO/HTM/TB/2005.349).

⁴ World Health Organization, <http://www.who.int/tb/dots/whatisdots/en/index.html>.

⁵ Bobak, M. e. a. 2002, *Advancing Public Health: 10 years of transition in central and eastern Europe and the newly independent states of former Soviet Union*; Savas, S. 2000, *Health Care Reform in Kyrgyzstan: Becoming a Lion*, WHO; and Staines, V. 1999, *A Health Sector Strategy for the Europe and Central Asia Region*, The World Bank: HNP, Washington, DC.

⁶ Meimanaliev, T. 2003, *Kyrgyz Health Care Model*, 1 edn, Uchkun JV, Bishkek; Savas, *Health Care Reform in Kyrgyzstan*; and Staines, *A Health Sector Strategy*.

⁷ Godinho, J., Veen, J., et al., *Stopping TB in Central Asia: Priorities for Action*, World Bank Working Paper No. 56, Washington, D.C.: The World Bank, 2005; Meimanaliev, A. et al., 2005, *Health Care Systems in Transition: Kyrgyzstan*, WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies.

⁸ Bobak, *Advancing Public Health* and Staines, *A Health Sector Strategy*.

⁹ Meimanaliev, *Kyrgyz Health Care Model* and Sargaldakova, A. & et al 2000, *Health Care Systems in Transition: Kyrgyzstan*, *European Observatory on Health Care Systems*; Sargaldakova, A. et al. 2000, *Health Care Systems in Transition: Kyrgyzstan*. *European Observatory on Health Care Systems*.

¹⁰ Meimanaliev, T. 2003, *Kyrgyz Health Care Model*, 1 edn. Uchkun JV, Bishkek; Sargaldakova, A. et al. 2000 *Health Care Systems in Transition: Kyrgyzstan*.

¹¹ Godinho, J., Veen, J. et al., *Stopping TB in Central Asia*.

¹² Decree #542 (20 July 2004) of the Government of the Kyrgyz Republic on the National Center of Phthysiology under the Ministry of Health of the KR. (г.Бишкек, Дом Правительства от 20 июля 2004 года N 542 Постановление Правительства Кыргызской Республики О Национальном центре фтизиатрии при Министерстве здравоохранения Кыргызской Республики.)

¹³ Meimanaliev, T. 2003, *Kyrgyz Health Care Model*; Savas, S. 2000, *Health Care Reform in Kyrgyzstan*; Meimanaliev, A. et al. 2004, *Health Care Systems in Transition: Kyrgyzstan*.

¹⁴ Meimanaliev, T. 2003, *Kyrgyz Health Model*; Savas, S. 2000, *Health Care Reform in Kyrgyzstan*; Meimanaliev, A. et al. 2004, *Health Care Systems in Transition: Kyrgyzstan*.

¹⁵ Policy brief #10, April 2005, *Evaluating Manas Health Sector Reform (1996-2005): Focus on Health Financing*. WHO/DfID Health Policy Analysis Project. Annual Package of Health System Monitoring Indicators.

¹⁶ Godinho, J., Veen, J. et al., *Stopping TB in Central Asia*.

¹⁷ Kyrgyz Republic Ministry of Health, “*Manas Taalimi*” *Kyrgyz Republic National Health Care Reform Program (2006-2010)*, August 2005 draft document, <<http://hpap.med.kg>>.

ADDITIONAL REFERENCES CONSULTED

- Atun, R.A., R. J. Coker, F. Drobniowski, Y. A. Samyshkin, and N. Lennox-Chhugani. "A toolkit for rapid assessment of health systems and tuberculosis control: Systemic Rapid Assessment Toolkit (SYSRA)." October 21, 2003. Unpublished draft document.
- Brown, A. *Integrating Vertical Health Programmes into Sector Wide Approaches: Experiences and Lessons*. Written for the Swiss Agency for Development and Cooperation. London: Institute for Health Sector Development, 2001.
- De Colombani, P., K. Vink, S. Ruesch-Gerdes, and M. Pak. "Review of the National TB Programme: Kyrgyz Republic, 1-13 March 2004." Copenhagen: World Health Organization Regional Office for Europe, 4 May 2004. Unpublished document.
- Ibragimov, A. "Strategic Change Management in the Context of Health Care Reforms: The Case of Kyrgyzstan." Unpublished thesis. Imperial College London, University of London, September 2004.
- Joncevska, Maria. "Laboratory Assessment Report, Kyrgyzstan: November 8-18, 2004." Written for Tuberculosis Control Program for the Central Asia Region. Almaty, Kazakhstan, 2004. Unpublished draft document.
- Kyrgyz Republic. Ministry of Health. "*Manas Taalimi*" *Kyrgyz Republic National Health Care Reform Program (2006-2010): Implementation Progress Monitoring Instrument*. Available on the website of the WHO/DfID Manas Health Policy Analysis Project: <<http://eng.hpap.med.kg/Articles/ViewSection.aspx?ArticleID=165>>.
- . "*Manas Taalimi*" *Kyrgyz Republic National Health Care Reform Program (2006-2010): Performance Monitoring Instrument*. Available on the website of the WHO/DfID Manas Health Policy Analysis Project: <<http://eng.hpap.med.kg/Articles/ViewSection.aspx?ArticleID=165>>.
- . *Plan of Work - Implementation of the National Health Care Reform Program "Manas Taalimi" (2006-2010)*. Unpublished document.
- Project HOPE. "Kyrgyzstan Quarterly Report (January-March)." Tuberculosis Control Program for the Central Asia Region, 2005. Unpublished document.
- . "Kyrgyzstan Quarterly Report (April-June)." Tuberculosis Control Program for the Central Asia Region, 2005. Unpublished document.
- . "Kyrgyzstan Quarterly Report (July-September)." Tuberculosis Control Program for the Central Asia Region, 2005. Unpublished document.

- Rack, R., N. Cebotarenko, and M. Mahmudova. "Kyrgyzstan TB Drug Management System Assessment: May 10-20, 2005." Written for Tuberculosis Control Program for the Central Asia Region. Almaty, Kazakhstan, 2005. Unpublished document.
- United States Agency for International Development. *Expanded Response to Tuberculosis*. August 2005. Development Experience Clearinghouse. <http://pdf.dec.org/pdf_docs/PDACF338.pdf>.
- Veen, J., et al. *Europe and Eurasia Regional Tuberculosis Evaluation*. October 2003. Development Experience Clearinghouse. <http://pdf.dec.org/pdf_docs/PNACW426.pdf>.
- World Bank. "Health and Social Protection Project." Project Appraisal Document. Report No. 34079 (Project ID PO84977). November 23, 2005. Projects Database. <http://wdsbeta.worldbank.org/external/default/WDSContentServer/IW3P/IB/2005/12/02/000160016_20051202132740/Rendered/PDF/34079.pdf>.
- . "Health and Social Protection SWAp Project." Project Information Document. Report No. AB1783 (Project ID PO84977). September 15, 2005. Projects Database. <http://wdsbeta.worldbank.org/external/default/WDSContentServer/IW3P/IB/2005/10/20/000104615_20051024103555/Rendered/PDF/PID0v50Oct1018.pdf>.
- . "Kyrgyz Republic Country Brief 2006." <<http://www.worldbank.org>>.
- . *Review of Experience of Family Medicine in Europe and Central Asia: Kyrgyz Republic Case Study*. Volume IV. Report No. 32354-ECA. Washington, D.C.: The World Bank, 2005.
- World Health Organization. *An Expanded DOTS Framework for Effective Tuberculosis Control*. WHO/CDS/TB/2002.297. Geneva: WHO, 2002.
- . *Compendium of Indicators for Monitoring and Evaluating National Tuberculosis Programs*. WHO/HTM/TB/2004.344. Geneva: WHO, 2004.
- . *Treatment of Tuberculosis: Guidelines for National Programmes, 3rd ed.* WHO/CDS/TB/2003.313. Geneva: WHO, 2003.
- World Health Organization/DfID Manas Health Policy Analysis Project. *Annual Package of Health System Monitoring Indicators*. April 2005. <http://eng.hpap.med.kg/MyFiles/Indicators2005_eng.pdf>.
- . "Mobilizing Resources for Health Care in Kyrgyzstan." Policy brief #1. <<http://eng.hpap.med.kg/Articles/ViewSection.aspx?ArticleID=157>>.

- . "The Kyrgyz Single Payer System." Policy brief #2. <<http://eng.hpap.med.kg/Articles/ViewSection.aspx?ArticleID=157>>.
 - . "Co-payment Policy in the Kyrgyz Health System." Policy brief #3. <<http://eng.hpap.med.kg/Articles/ViewSection.aspx?ArticleID=157>>.
 - . "Policy Issues in Providing Outpatient Specialist Care. Policy brief #5. <<http://eng.hpap.med.kg/Articles/ViewSection.aspx?ArticleID=157>>.
 - . "Did Restructuring of Health Facilities Reduce Utility Costs?" Policy brief #6. <<http://eng.hpap.med.kg/Articles/ViewSection.aspx?ArticleID=157>>.
 - . "WHO Briefing Points for the 2004 Consultative Group Meeting." Policy brief #7. <<http://eng.hpap.med.kg/Articles/ViewSection.aspx?ArticleID=157>>.
 - . "Evaluating Manas Health Sector Reform (1996-2005): Focus on Primary Health Care." Policy brief #8. <<http://eng.hpap.med.kg/Articles/ViewSection.aspx?ArticleID=157>>.
 - . "Evaluating Manas Health Sector Reform(1996-2005): Focus on Restructuring." Policy brief #9. <<http://eng.hpap.med.kg/Articles/ViewSection.aspx?ArticleID=157>>.
- ZdravPlus. "Issyk-Kul Oblast Trip Report/Patients Flow Analysis." ZdravPlus, July 2005. Unpublished document.
- . "Kyrgyzstan ZdravPlus Country Profile." February 15, 2003. <http://www.zplus.kz/Country_Profiles/KR%20Country%20Profile_eng.pdf>.
 - . "Kyrgyzstan ZdravPlus – TB Strategy." ZdravPlus, 2005. Unpublished document.
 - . "Regional ZdravPlus TB Strategy: Improving TB Case Finding and Completed Treatment." ZdravPlus, 2005. Unpublished document.

ANNEX A: Key Informants in Kyrgyzstan and Kazakhstan

Kyrgyzstan Informants, October 27-November 8, 2005

Organization	Name	Position
Primary TB institutional counterpart		
National Center of Phthisiology	Alisherov, Avtandil Shermamatovich	Director General
Health counterparts engaged in policy, systems change, and finance		
Manas Project	Seitalieva, Chinara Toktosunovna	Head of Project
Mandatory Health Insurance Fund	Ibraimova, Ainura Sultanovna	Deputy Minister, Director
	Kadyrova, Ninel Azimkhanovna	Deputy Director
Health Insurance Fund, Bishkek City	Mambetov, Marat Avalovich	Director
Department of Economics, Financing and Policy, Ministry of Health	Oskonbaeva, Gulnara Turgunbekovna	Chief of Department
Department of Organizational Arrangements and Licensing, Ministry of Health	Sagynbaeva, Dinara Zarlykovna	Deputy Chief
	Kuhranova, Elena Viktorovna	Specialist/TB Advisor
Multisectoral Coordination Committee; Unit for Coordination and Monitoring in HIV/AIDS Area, Office of Prime Minister	Isakova, Ainagul Uraimovna	Head of Unit
TB and general health service providers and facility managers/administrators		
Chui Oblast Joint Hospital	Chukushev, Abilnazar Chukushovich	Head of OJH
	Chengelov, A.A.	Deputy - Clinical Work
	Boobekov, A.A.	Deputy - OrgMethod Work
	Sarukeeva, D. O.	Phthisiologist, Chui Rayon
Chui Oblast Family Medicine Center	Bolotbekov, Bakyt Abdlyldaevich	Head of FMC
	Asylbekov, E. S.	Deputy - Clinical Work
	Ismanov, Zh. I.	Deputy - OrgMethod Work
	Abdyldaev, K.	Phthisiologist, Tokmok City
Chui Oblast TB Dispensary	Hamitov, Bulat Ramzievich	Head of TB Dispensary
	Hamitova, Z. A.	Doctor/Analyst
	Asankanova, K. S.	Drug Provision Coordinator
	Storozhkova, A. V.	Deputy - Clinical Work
	Hamitov, E. B.	Laboratory Service Coordinator
Issyk-Kul TB Department	Toktobaev, Kuban Amanatovich	Head Doctor
	Beishebaev, Bakyt Askerovich	Deputy
Issyk-Kul Oblast Family Medicine Center	Akunova, Djanyl Kachaganovna	Head of FMC
Key donor and lender organizations		
USAID/Kyrgyzstan	Bibosunova, Damira Ilyasovna	Health Project Management Specialist
WHO	Moldokulov, Oskon	Liaison Officer
World Bank	Sargaldakova, Asel	Operations Officer

KfW (German Development Bank)	Gorovenko, Olga	Bank Representative
Professional associations and Ministry of Labor and Social Protection		
Ministry of Labor and Social Protection	Semenenko, Evgeny Georgievich	Minister
Hospital Association	Djemuratov, Kubanychbek Abdykadyrovich	Head of Association
Association of Family Group Practices (FGPA)	Mukeeva, Suyumjan Toktorovna	Administrative Director
Key partner organizations/projects		
CAPACITY Project	Muratalieva, Elvira	Country Director – KG
Health Policy Analysis Project – WHO/DFID	Jakab, Melitta	Head of Project
International Committee of the Red Cross (ICRC)	Soucy, Lyne	Medical Delegate
Médecins Sans Frontières (MSF)	Theroud, David	Head of Mission
	Seidesimbaeva, Aisulu	Assistant Head of Mission
PAL Kyrgyz-Finnish Project	Mieny, Lilly	Principle Technical Advisor
	Brimkulov, Ulan Nurgazievich	PAL National Manager
	Sultanova, Asja Sultanovna	Project Coordinator
Soros Foundation - Kyrgyzstan	Bashtovenko, Svetlana Nikolaevna	Chairperson of the Board
	Tiulegenov, Medet Temirovich	Executive Director
ZdravPlus	McEuen, Mark	Country Manager - KG
	Smith, Barton	Clinical Training
Ministries with health services outside of civil sector		
Ministry of Justice	Kaiypov, Marat Tashtanovich	Minister
	Abdyldaeva, Raushan Djatkombaevna	Deputy Chief of the Department for Reforms in Penal System
Ministry of Internal Affairs	Eskenderov, K. T.	Head of MIA Republican Hospital
	Zlotina, Svetlana Borisovna	TB Specialist
	Abykeeva, A. A.	Head, MIA Policy
	Kerimova, G.	Pulmonologist-pthysiologist
Ministry of Defense	Yougai, Boris Alexandrovich	Deputy Minister, Major General
	Asykbaev, Nuradin Usupbaevich	Deputy Chief for Medical Department, Colonel
Training and education		
Ministry of Education	Ivannikov, A. G.	Deputy Minister
	Konokbaev, Z. Ch.	Head of Department – Preschool, School, and Out-of-school Education

Institute of Advanced Medical Studies	Chubakov, Tolegen Chubakovich	Head of Institute
KGMA	Asambaev, Abdykadyr Asambaevich	Head of Department of Phthisiology
TB/HIV co-infection (public sector)		
Republican AIDS Center	Shapiro, Boris Moiseevich	Director General
	Saidashev, Leron Shahievich	Head Doctor/TB Specialist
Public health		
Republican Center for Health Promotion	Aitmurzaeva, Gulmira Tashmurazaevna	Director
Department of Sanitary and Epidemiological Surveillance	Schteinke, Lyudmila Vasilievna	MoH Deputy Minister, Head
	Abdikarimov, Sabyrjan Toktosunovich	Director General
	Usenbaev, Nurbolot Toloshevich	Deputy Director General

**Kazakhstan Informants
Orientation and Post-assessment Briefing
October 24-25 and November 10, 2005**

Organization	Name	Position
USAID/CAR	Pelzman, Kerry	Director, Office of Health and Education
	Aitmagambetova, Indira	Project Management Specialist, Office of Health and Education
ZdravPlus	O'Dougherty, Sheila	Regional Director
	Yedilbaev, Askar	TB Advisor
Project HOPE CAR Regional Office	Veen, Jaap	Technical Director
	Joncevska, Marija	Regional Laboratory Specialist
	Toktabayanov, Arman	Regional Specialist on MDR-TB and TB/HIV
	Zhandauletova, Zhanna	Regional Specialist on Penitentiary System
Project HOPE Kazakhstan Country Office	Makhmatov, Movsar	Country Manager
CAPACITY Project	Kulsharova, Maya	Regional AIDS Services Coordinator

ANNEX B: Selected Legislative Documents Reviewed for Assessment

Selected documents reviewed for assessment:		
<i>Selected Legislative Documents on the General Health System</i>		
Doc #	Date	Name
#6	January 9, 2005	Kyrgyz Law "On protecting the health of the citizens of the Kyrgyz Republic"
#116	August 13, 2004	Kyrgyz Law "On health provider organizations in the Kyrgyz Republic"
#159	July 30, 2003	Kyrgyz Law "On single payer system in health financing in the Kyrgyz Republic "
#107	February 27, 2004	Kyrgyz Government Decree on "Program of State Guaranteed Health Benefits Package for the citizens of the Kyrgyz Republic - 2004"
		National Health Reform Program of the Kyrgyz Republic "Manas Taalimi" 2006-2010
<i>Selected Legislative Documents on TB</i>		
Doc #	Date	Name
#65	May 18, 1998	Kyrgyz Law "On the protection of the population from tuberculosis" (restated in Kyrgyz Law #144 on 16 October 2002 and Kyrgyz Law #51 on 14 March 2005)
#204	June 2, 2005	Kyrgyz Government Decree "On the creation of a country multisectoral coordination committee for the fight against HIV/AIDS, TB, and malaria"
#41	February 3, 2003	Kyrgyz Government Decree "On the implementation process of KG National Program 'Tuberculosis II' for 2001-2005"
#263	June 6, 2001	Kyrgyz Government Decree "On KG National Program 'Tuberculosis II' for 2001-2005"
#569	August 27, 1998	Kyrgyz Government Decree "On the implementation process of Order #389 on the KG National Program 'Tuberculosis I' for 1996-2000"
#389	June 30, 1997	Kyrgyz Government Decree "On the implementation process of KG National Program 'Tuberculosis' for 1996-2000"
		KG National Program "Tuberculosis II" for 2001-2005
		KG National Program "Tuberculosis I" for 1996-2000, confirmed by Kyrgyz Government Order #531 on 15 December 1995
#285	August 30, 2000	Kyrgyz MOH Prikaz "About actions on further improvement of TB services for the population of the KG" with attached manuals and guidelines
<i>Selected Legislative Documents Relating to Drug Management</i>		
Doc #	Date	Name
	March 13, 2003	Kyrgyz Law "On pharmaceutical drugs"
#312	April 29, 2004	Kyrgyz Government Decree "On the list of essential drugs, vaccines, and medical goods in the KG"
#203	April 10, 2003	Kyrgyz Government Decree "On measures to improve drug supply for the population" (restated in Kyrgyz Government Order #343 on 12 June 2003)
#704	October 15, 2002	Kyrgyz Government Decree on pharmaceutical drug policy
#535	December 13, 2002	Kyrgyz MOH Prikaz "On the improvement of the work of medical institutions with respect to the control and registration of side effects related to drug treatment"
#281	November 17, 1998	Kyrgyz MOH Prikaz "On the approval of guidelines for the organization of storage of different groups of drugs and medical goods at pharmaceutical facilities"
		Statement "On the procedures of receipt and distribution of drugs, medical goods, medical equipment, and other materials, received through humanitarian assistance," Appendix 1 in MOH Prikaz #311 (21 July 2003)
		Clinical protocols for primary health care, adopted by the Coordination Council on the elaboration and implementation of clinical protocols and confirmed by MOH Prikaz #184 (30 May 2001); Prikaz #384 (5 November 2001); Prikaz #402 (20 November 2001); Prikaz #421 (30 November 2001); and Prikaz #33 (30 January 2002).

<i>Selected Legislative Documents on Labs</i>		
Doc #	Date	Name
#285	August 30, 2000	Kyrgyz MOH Prikaz "About actions on further improvement and TB services for the population of the KG" with attached manuals and guidelines
#13 - attached to #285	August 30, 2000	"Manuals on detecting pulmonary TB by bacterioscopic technique"
#228	June 27, 2001	Kyrgyz MOH Prikaz "On conducting training workshops for Monitoring Center specialists, chiefs of labs, and lab technicians"

ANNEX C: NTBC Priorities for TWGs

NTBC's Strategic directions for Thematic Working Groups of Coordination TB Committee

The following priorities have been identified for the Thematic Working Group on the Issues of Monitoring, Training, Planning and Treatment under the NTP:

- *Continue working on a new order to comply with the WHO recommendations of 2003;*
- *Make relevant amendments in the 1994 WHO Modules to comply with the WHO Recommendations for National TB Programs of 2003.*
- *Write the guidelines on monitoring the implementation of the DOTS strategy.*
- *Adopt relevant legislation to regulate management of TB cases under the integrated civilian and prison TB control Programs;*

For the Thematic Working Group on Laboratory Issues:

- *Develop a strategic plan to support the laboratory service*
- *Develop practical guidelines on the methods of culture and drug susceptibility testing*
- *Develop a mechanism for regular supplies of laboratory materials;*

For the Thematic Working Group on MDR TB:

- *Adopt the existing or amended versions of the practical manuals on MDR TB diagnosis, treatment and follow up.*
- *Cooperate with the regional WHO branch and other international agencies in conducting the national TB drug resistance study*
- *Use the results of the TB drug resistance study to define the strategy and practical steps to extend the DOTS-Plus coverage throughout the country.*
- *Further consolidate the efforts of various key players to extend the DOTS Plus Program (WHO, donors, international experts, etc)*

For the Thematic Working Group on TB/HIV:

- *Study the structure of TB/HIV patients (sensitive/resistant) and identify potential funding sources*
- *Adopt and implement a working plan for measures to be implemented in co-operation with the GFATM HIV project and the USAID Potential project.*

For the Thematic Working Group on Drug Management:

- *Make amendments in the guidelines to bring them in line with the latest WHO recommendations of 2003*
- *Put into practice standardised data collection and reporting forms*

- *Lobby for the TB component to be included into the National Law on Drug Supplies*
- *Plan a set of measures to strengthen control over the import of drugs into the country*
- *Improve co-ordination of donors' efforts*
- *Eliminate discrepancies in treatment protocols, TB registers and the list of vitally important drugs*
- *Further improve the text of Order No. 535 in the part concerning the documentation of side effects*

For the Thematic Working Group on the Penitentiary System:

- *Write a manual for TB control in the penitentiary system*
- *Organise culture testing for TB inmates in the civilian sector of the health care system*
- *Organise transportation of specimens for cultural testing in the civilian sector laboratories*
- *Create a programme "Before and After Release"*
- *Co-ordinate the efforts of donors in the penitentiary system*

ANNEX D: NTBC TB Statistics

